TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1891.

No. 129.

THE WASHBURN AND MOEN MANUFACTURING COMPANY AND ISAAC L. ELLWOOD, APPELLANTS,

vs.

W. W. NORWOOD.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF IOWA.

FILED SEPTEMBER 28, 1888.

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JUDD & DETWEILER, PRINTERS, WASHINGTON, D. C., JUNE 30, 1891.

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1 THE UNITED STATES OF AMERICA, } ss:
Northern District of Iowa,

Pleas before the circuit court of the United States in and for the northern district of Iowa, eastern division, at a term begun and holden at Dubuque, in said district, on the — Tuesday of ——, A. D. 188–, before the Hon. Oliver P. Shiras, judge of said court.

WASHBURN AND MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD *vs.* W. W. NORWOOD. } No. 138. Equity.

Be it remembered that heretofore, to wit, on the 8th day of December, A. D. 1888, a bill of complaint was filed in the office of the clerk of the United States circuit court in and for the northern district of Iowa in the words and figures following, to wit:

Circuit Court of the United States within and for the Northern District of Iowa, Eastern Division.

2 WASHBURN & MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD *vs.* W. W. NORWOOD. } In Equity.

To the honorable the judges of the circuit court of the United States within and for the northern district of Iowa:

1.

Washburn & Moen Manufacturing Company, a corporation duly established under and by the laws of the Commonwealth of Massachusetts and having a place of and doing business in the city and county of Worcester, in said Commonwealth, and Isaac L. Ellwood, of De Kalb, in the county of De Kalb and State of Illinois, and a citizen of said State of Illinois, bring this their bill of complaint against W. W. Norwood, of Mount Auburn, in the State of Iowa, and a citizen of said State of Iowa.

2.

And thereupon your orators complain and say that they are informed and believe that one Joseph F. Glidden was and is the first and original inventor of certain new and useful improvement in wire fences described in the letters patent next hereinafter
3 mentioned, and which had not been known or used before his said invention and which had not been at the time of his application for a patent therefor, as next hereinafter mentioned, in public use or on sale for more than two years prior to his said application.

3.

And your orators further show unto your honors that said Joseph F. Glidden, being so as aforesaid the original and first inventor and discoverer of said improvement in wire fences and being also a citizen of the United States, did, on the twenty-fourth day of November, A. D. 1874, upon due application therefor, obtain letters patent of the United States for said invention, in due form of law, under the seal of the Patent Office of the United States, signed by the acting Secretary of the Interior and countersigned by the acting Commissioner of Patents of the United States, bearing date the day and year last aforesaid and marked No. 157,124, whereby there was granted and secured to said Joseph F. Glidden, his heirs, administrators, and assigns, for the term of seventeen years from and after the date of said letters patent No. 157,124, the full and exclusive right and liberty of making, constructing, using, and vend-
4 ing to others to be used the said invention and improvement described in said letters patent, as by said letters patent or a duly authenticated copy thereof, here in court to be produced, will more fully and at large appear.

4.

And your orators further show unto your honors that on or about the twenty-seventh day of January, A. D. 1875, the said Joseph F. Gidden, by an assignment in writing of that date, sold, assigned, and transferred unto said Isaac L. Ellwood one undivided half of all his right in said letters patent No. 157,124, which assignment was duly recorded in the Patent Office of the United States, as by said assignment or a duly authenticated copy thereof and the certificate of such recording thereto affixed, ready in court to be produced, will more fully and at large appear.

5.

And your orators further show unto your honors that on or about the eighth day of May, A. D. 1876, the said Joseph F. Glidden, by an assignment in writing of that date, sold, assigned, and transferred unto said Washburn & Moen Manufacturing Company one undivided half part, share, and interest in and to said letters
5 patent No. 157,124, which assignment was duly recorded in the Patent Office of the United States, as by said assignment or a duly authenticated copy thereof and the certificate of such recording thereto affixed, ready in court to be produced, will more fully and at large appear.

6.

And your orators further show unto your honors that an office copy of the specifications and drawings of said letters patent No. 157,124 is hereto annexed and marked "Exhibit A."

7.

And your orators further show unto your honors that by virtue of the hereinbefore-cited premises and the aforesaid assignment to

them they became and now are the sole and exclusive owners of said letters patent No. 157,124 and of all the rights and privileges granted and secured or intended to be granted and secured thereby in, for, and throughout the said district of Iowa and in, for, and throughout the said State of Iowa and elsewhere in the United States as aforesaid.

8.

And your orators further show unto your honors that since they became the owners of said invention and improvement as
6 aforesaid they have invested and expended large sums of money and have been at great trouble in and about said invention for the purpose of carrying on the business of manufacturing and selling said improvement in wire fences or causing the same to be done and making the same profitable to themselves and useful to the public, and that said invention has been and is of great utility and value and of great benefit and advantage to the public, and that said improvement in wire fences has been and now is being manufactured and sold or caused to be manufactured and sold by your orators to their great benefit and advantage and to the great benefit and advantage of the public, and that the public have generally acknowledged and acquiesces in the aforesaid rights of your orators under said patent, and that your orators will realize and receive large gains and profits from said invention if infringements of said letters patent by said defendant and his confederates shall be prevented.

9.

And your orators further show unto your honors that notice was given to the said defendant by your orators of the aforesaid
7 rights of your orators under said letters patent and of his infringement of said letters patent No. 157,124, and that the improvement in wire fences which was being sold by the defendant, as hereinafter mentioned, used & employed in its construction and operation the aforesaid improvement and was an infringement upon said letters patent No. 157,124.

10.

Yet the said defendant, well knowing the premises and the rights acquired by and secured to your orators as aforesaid, but contriving to injure your orators, and to deprive them of the benefits and advantages which might and otherwise would accrue to them from said invention as aforesaid, and both before and after said notice to defendant as aforesaid and before the commencement of this suit, did, at said Mount Auburn and elsewhere in said district and at various other places within the United States, as your orators are informed and believe, without the license or allowance and against the will of your orators and in violation of their aforesaid rights and in infringement of said letters patent No. 157,124, un-
8 lawfully and wrongfully and in defiance of the aforesaid rights of your orators, use and vend to others to be used said inven-

tion and improvement patented in and by said letters patent No. 157,124, and did use and vend to others to be used, and did cause the same to be done, barbed fence wire made according to and using and employing in its construction and operation said invention and improvement and substantial & material parts thereof and is still continuing so to do, and that said defendant, as your orators are informed and believe, is threatening to sell the aforesaid barbed fence wire in said district and territory owned by your orators as aforesaid in large amounts and quantities and to supply the market therewith; and that said defendant, as your orators are informed and believe, has a large quantity of said barbed fence wire on hand, made, which he is offering for sale, and ready for sale, and to be sold by him, at such prices and on such terms as he can obtain, in infringement of said letters patent and of the aforesaid exclusive rights and privileges of your orators under the same; and that said actings and doings of the defendant and his
9 confederates are all in defiance of the aforesaid exclusive rights acquired by and secured to your orators as aforesaid and to their great and irreparable loss and injury, and by which they have been deprived and still are being deprived of great gains and profits which they might and otherwise would have obtained, but which have been received and enjoyed and are still being received and enjoyed by the said defendant by and through his aforesaid unlawful acts and doings.

11.

And your orators further show unto your honors on information and belief that the said defendant has sold large amounts and quantities of said barbed fence wire and has large amounts and quantities thereof on hand which he is offering for sale as aforesaid, and has made and realized large profits and advantages therefrom, as your orators are informed and believe, but to what extent and how much exactly your orators do not know and pray a discovery thereof; and your orators say that the use of said invention by the defendant as aforesaid and his preparation for
10 and avowed determination to continue the same and his other aforesaid unlawful acts in disregard and defiance of the rights of your orators as aforesaid have the effect to encourage and induce others to venture to infringe said letters patent in disregard of your orators' aforesaid rights.

12.

And forasmuch as your orators can have no adequate relief except in this court, to the end, therefore, that the said defendant may, if he can, show why your orators should not have the relief hereby prayed, and may, according to his best and utmost knowledge, remembrance, information, and belief, full, true, direct, and perfect answer mak- to the premises, and to all the several matters hereinbefore stated and charged, as fully and particularly as if severally and separately interrogated as to each and every of said matters, and may be compelled to account for and pay to your ora-

tors the gains and profits by him acquired and five thousand dollars damages suffered by your orators from the aforesaid unlawful acts of the said defendant.

13.

11 And your orators pray that the said defendant, W. W. Norwood, his servants, agents, attorneys, & workmen, and each and every of them, may be restrained and enjoined by the order and injunction of this honorable court from directly or indirectly using, vending, delivering or working, or putting or continuing in practice, operation, or use, or in anywise counterfeiting or imitating the said invention and improvement or any part thereof or any improvement in wire fences made in accordance therewith or like or similar to the barbed fence wire which he has heretofore used or sold in infringement of said letters patent No. 157,124, and that the said defendant may be decreed to pay the costs of this suit, and that your orators may have such further relief or such other relief as to this honorable court shall seem meet and as shall be agreeable to equity.

14.

May it please your honors to grant unto your orators the writ of injunction, issuing out of and under the seal of this honorable court, commanding, enjoining, and restraining the said defendant, W. W. Norwood, and his servants, agents, attorneys, and workmen, and each and every of them, as is hereinbefore in that behalf
12 prayed; and also may it please your honors to grant unto your orators a preliminary injunction in due form, as above prayed.

15.

May it please your honors to grant unto your orators the writ of subpœna, issuing out of and under the seal of this honorable court, directed to the said defendant, W. W. Norwood, commanding him, by a certain day and under a certain penalty, to be and appear in this honorable court, then and there to answer the premises, and to stand to and abide such order and decree as may be made against them and each of them.

And your orators will ever pray, etc.

WASHBURN & MOEN M'F'G CO.,
By HENRY B. CRAGIN,
Att'y-in-Fact. [SEAL.]

OFFIELD, TOWLE & PHELPS,
Solicitors and of Counsel for Complainants.

_____, _____,
Of Counsel for Complainants.

UNITED STATES OF AMERICA, }
Northern District of Illinois. }

On this third day of December, A. D. 1886, before me personally appeared Henry B. Cragin, attorney-in-fact for Washburn &
13 Moen Manufacturing Company, the complainant corporation in the above bill of complaint, who, having been by me duly sworn, deposes and says that he has read the foregoing bill of complaint by him subscribed, and that the same is true of his own knowledge, except as to matters which are therein stated on information and belief, and as to those matters he believes it to be true.

HENRY B. CRAGIN.

Before me—

FREDERICK C. GOODWIN,
[NOTARIAL SEAL.] *Notary Public.*

14 EXHIBIT A.

UNITED STATES PATENT OFFICE.

JOSEPH F. GLIDDEN, of De Kalb, Illinois.

Improvement in Wire Fences.

Specification forming part of Letters Patent No. 157,124, dated November 24, 1874; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, Joseph F. Glidden, of De Kalb, in the county of De Kalb and State of Illinois, have invented a new and valuable improvement in wire fences; and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

(Here follows diagram marked p. 15.)

Figure 1 represents a side view of a section of fence exhibiting my invention. Fig. 2 is a sectional view, and Fig. 3 is a perspective view, of the same.

This invention has relation to means for preventing cattle from breaking through wire fences; and it consists in combining, with the twisted fence-wires, a short transverse wire, coiled or bent at its central portion about one of the wire strands of the twist, with its free ends projecting in opposite directions, the other wire strand serving to bind the spur-wire firmly to its place, and in position, with its spur ends perpendicular to the direction of the fence-wire, lateral movement, as well as vibration, being prevented. It also consists in the construction and novel arrangement, in connection with such a twisted fence-wire, and its spur-wires, connected and arranged as above described, of a twisting-key or head-piece passing through the fence-post, carrying the ends of the fence-wires, and serving, when the spurs become loose, to tighten the twist of the wires, and thus render them rigid and firm in position.

J. F. GLIDDEN.

Wire-Fences.

No. 157,124. Patented Nov. 24, 1874.

No. 129. H. & M. Mfg. Co. et al. v. Norwood } p. 15

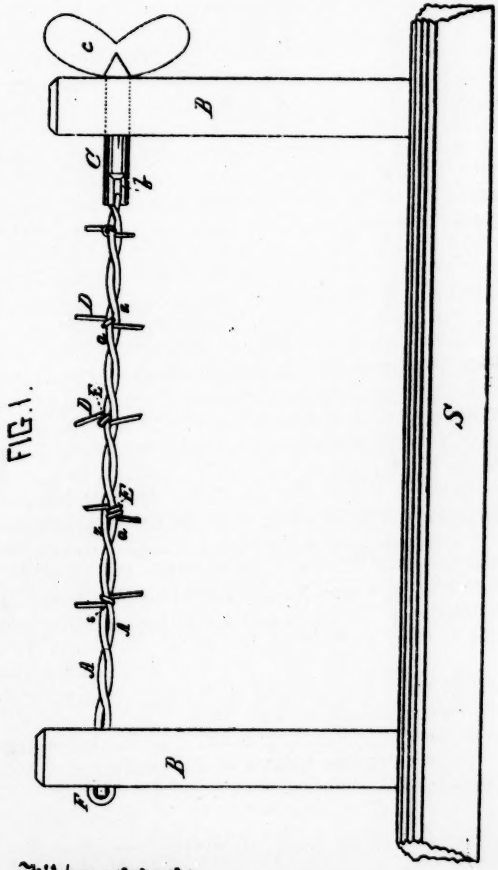


FIG. I.

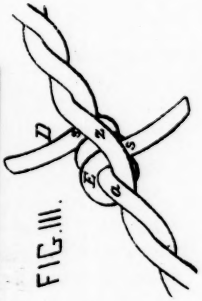


FIG. III.



FIG. II.

Witnesses:

J. H. Ellis

G. G. Bellows

Inventor:

Joseph F. Glidden.

By Geo. H. Chapin

Atty.

In the accompanying drawings, the letter B designates the fence-posts, the twisted fence-wire connecting the same being indicated by the letter A. C represents the twisting-key, the shank of which passes through the fence-post, and is provided at its end with an eye, *b*, to which the fence-wire is attached. The outer end of said key is provided with a transverse thumb-piece, *c*, which serves for its manipulation, and at the same time, abutting against the post, forms a shoulder or stop, which prevents the contraction of the wire from drawing the key through its perforation in said post.

The fence-wire is composed at least of two strands, *a* and *z*, which are designed to be twisted together after the spur-wires have been arranged in place.

The letter D indicates the spur-wires. Each of these is formed of a short piece of wire, which is bent at its middle portion, as at E, around one only of the wire strands, this strand being designated by the letter *a*. In forming this middle bend or coil several turns are taken in the wire, so that it will extend along the strand-wire for a distance several times the breadth of its diameter, and thereby form a solid and substantial bearing-head for the spurs, which will effectually prevent them from vibrating laterally or being pushed down by cattle against the fence-wire. Although these spur-wires may be turned at once around the wire strand, it is preferred to form the central bend first, and to then slip them on the wire strand, arranging them at suitable distances apart. The spurs having thus been arranged on one of the wire strands are fixed in position and place by approaching the other wire strands *z* on the side of the bend from which the spurs extend, and then twisting the two strands *a z* together by means of the wire key above mentioned, or otherwise. This operation locks each spur-wire at its allotted place, and prevents it from moving therefrom in either direction. It clamps the bend of the spur-wire upon the wire *a*, thereby holding it against rotary vibration. Finally, the spur ends extending out between the strands on each side, and where the wires are more closely approximated in the twist, form shoulders or stops *s*, which effectually prevent such rotation in either direction.

Should the spurs, from the untwisting of the strands, become loose and easily movable on their bearings, a few turns of the twisting-key will make them firm, besides straightening up the fence-wire.

What I claim as my invention, and desire to secure by letters patent, is—

A twisted fence-wire having the transverse spur-wire D bent at its middle portion about one of the wire strands *a* of said fence-wire, and clamped in position and place by the other wire strand *z*, twisted upon its fellow, substantially as specified.

JOSEPH F. GLIDDEN.

Witnesses:
G. L. CHAPIN.
J. H. ELLIOTT.

16 (Endorsed:) United States circuit court, northern district of Iowa, eastern division. In equity. Bill of complaint.

Washburn & Moen Manufacturing Co. and Isaac L. Ellwood *vs.* W. W. Norwood. Offield, Towle & Phelps, solicitors and of counsel for complainants. Filed 8 December, 1886. Alfred Hobbs, dep. cl'k.

And afterwards, to wit, on the 13th day of December, A. D. 1886, there was filed in the office of the clerk of said court a subpœna in chancery; which subpœna in chancery is in the words and figures following, to wit:

UNITED STATES OF AMERICA,
Northern District of Iowa, Eastern Division, } *ss*:

The President of the United States to W. W. Norwood, of Mount Auburn, Iowa:

We command you and each of you that you appear before the judge of the circuit court of the United States for the northern
17 district of Iowa, at Dubuque, on the first Monday of January, it being the third day of January next (A. D. 1887), to answer to the bill of complaint of Washburn & Moen Manufacturing Company and Isaac L. Ellwood, this day filed in the office of the clerk of said court, and then and there to receive and abide by such judgment and decree as shall then and thereafter be made, upon pain of such judgment being pronounced — you by default.

To the marshal of the northern district of Iowa; returnable to the first rule day, it being Monday, the third day of January, A. D. 1887.

Witness the Hon. Morrison R. Waite, Chief Justice of
[SEAL.] the Supreme Court of the U. S., at Dubuque, this the 8th day of December, A. D. 1886, and of the Independence the 111 year.

A. J. VAN DUZEE,
Clerk U. S. C. C., Northern District of Iowa,
By ALFRED HOBBS, *Deputy.*

MEMORANDUM.—The within-named defendant is notified that unless he enters his appearance in the clerk's office of said court, at Dubuque aforesaid, on or before the day to which the above writ is returnable, as above stated, the complaint will be taken
18 against him as confessed and a decree entered thereon accordingly.

[SEAL.]

A. J. VAN DUZEE,
Clerk U. S. C. C., Northern District of Iowa,
By ALFRED HOBBS, *Deputy.*

This writ came into my hands for service on the 8th day of December, A. D. 1886, and I served the same on the within-named W. W. Norwood on the 10th day of December, 1886, by delivering a true copy of the same to him personally at Mt. Auburn, in the county of Benton and State of Iowa.

W. M. DESMOND,
U. S. Marshal.
T. M. HOPKINS, *Deputy.*

Marshal's fees:

Mileage, 140 miles	$8 40
Service on 1	2 00
Copy, 1	1 00
	$11 40

[Endorsed:] No. 138. Subpœna in chancery. Circuit court of the United States, northern district of Iowa. Washburn & Moen Manufacturing Co. *et als. vs.* W. W. Norwood, Mount Auburn, Iowa. Returnable to rule day, first Monday in January, A. D. 1887. A. J. Van Duzee, clerk. Filed 13 December, A. D. 1886. Alfred Hobbs, dep'y clerk. Offield, Towle & Phelps, comp'ts' sol., 163 Dearborn St., Chicago.

19 And afterwards, to wit, on the 30th day of December, 1886, there was filed in the office of the clerk of said court defendant's appearance; which appearance is in words and figures following, to wit:

Circuit Court of the United States within and for the Northern District of Iowa, Eastern Division.

WASHBURN & MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD *vs.* W. W. NORWOOD.	In Equity.

Comes now the defendant, W. W. Norwood, above named, by his attorneys, and herein enters his appearance by himself as well as by his attorneys.

W. W. NORWOOD, *Def't*, &
BLAIR & NORRIS,
Attorneys for Def't.

(Endorsed:) In U. S. circuit court, northern dist., east. div. of Iowa. Washburn & Moen M'f'g Co. & Isaac L. Ellwood *vs.* W. W. Norwood. Def't- appearance. Filed Dec'r 30, '86. A. J. Van Duzee, clerk.

And afterwards, to wit, on the 28th day of January, A. D. 1887, there was filed in the office of the clerk of said court in above
20 cause def't's answer; which answer is in the words and figures following, to wit:

Circuit Court of the United States within and for the Eastern Division of the Northern District of Iowa.

WASHBURN & MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD *vs.* W. W. NORWOOD.	In Equity. Answer.

I. Comes now the defendant herein, W. W. Norwood, and, answer-

ing the bill of complaint of the above-named complainants, saving and reserving to himself all benefit and advantage of exception which can be had or taken to the many errors, uncertainties, and other imperfections in the said complainants' bill of complaint contained, says—

II. That this defendant has no knowledge or information sufficient to form a belief as to the allegations in said complaint that the said Joseph F. Glidden was and is the first and original inventor of certain new and useful improvements in wire fences described in certain letters patent set forth in said bill of complainants, except such knowledge and information as has been derived from
21 the said bill of complaint, and therefore *they* leave the complainants to make such proof thereof as they may be advised is necessary in the premises.

III. Defendant, further answering, says that *they have* no knowledge or information in regard to the application of the said Joseph F. Glidden for letters patent for his said alleged invention of certain new and useful improvements in wire fences, or that he obtained letters patent therefor on the 24th day of November, 1874, marked 157,124, except such knowledge and information as he has obtained from the bill of complaint of said complainants, and therefore he leaves the complainants to make such proof thereof as they may be advised is necessary in the premises.

IV. This defendant, further answering, says that he has no knowledge or information of any conveyance or assignment from the said Joseph F. Glidden to the said Isaac L. Ellwood or to the said Washburn & Moen Manufacturing Company of any interest in or to the said alleged letters patent No. 157,124, and *they* therefore leave said complainants to make such proof thereof as they may be advised is necessary in the premises.

22 V. This defendant, further answering, says that he has no knowledge as to the title of the said complainants to the said letters patent No. 157,124 in, for, and through said eastern division of the northern district of or of the district of the State of Iowa and elsewhere in the United States or as to their ownership thereof, and therefore *they* leave the said complainants to make such proof thereof as they may be advised is necessary in the premises.

VI. And, further answering, this defendant admits, upon information and belief, that complainants have made large sums of money from the sale and manufacture of wire fences; that they have invested and expended large sums of money for the purpose of carrying on the business & manufacturing and selling said fence wire & to introduce the same, to wit, said pretended invention claimed by letters patent No. 157,124, this defendant has no knowledge except as he has derived from said complainants' bill of complaint herein, and therefore deny the same, and also deny that the public have acquired in the claims of said complainants any benefit and advantage to the alleged invention in said letters patent, and deny that the public have generally acknowledged and acquiesced in any rights of
23 complainants in said pretended letters patent.

VII. Admit that defendant received a notice, purporting to

come from said complainants, of their pretended rights under said letters patent No. 157,124, and that this defendant was, by selling wire, infringing said pretended patent, but this defendant has no knowledge or information as to whether said notice came from said complainants, and therefore leave- the same for them to prove as they may seem advised.

VIII. Defendant, further answering, admits that at Mount Auburn, in the State of Iowa, and nowhere else, he has been selling barb wire made and manufactured by the Beat Em All Barb Wire Company, formerly of Waterloo, but now of Cedar Falls, Iowa, but allege- that he has been selling the same for said company on commission only, and has never bought the same of said company, but acted only as its agent; and, further answering, say- that he has no knowledge or information, further than what is alleged in said complaint, that the said wire he is so selling for the Beat Em All Barb Wire Company or any other wire is manufactured without a license from complainants or against their will, or that the same is
24 an infringement of said pretended letters patent No. 157,124 or in defiance of their pretended rights; and on information and belief deny every other allegation in paragraph 10 of said complainant not herein *not herein* otherwise answered.

IX. Admits that he has sold wire as alleged in the last paragraph of this answer, and denies that he has sold it in any other manner, and denies that he has sold large quantities of the same, but only in moderate quantities, and has now but a small quantity on hand, and, as defendants *are* informed and believes, the same is not being sold in violation of the rights of complainants, and that the same does not encourage and induce others to infring*ing* the complainants' pretended invention.

X. And, further answering, defendants on information and belief say- that said complainants ought not to maintain said suit, for that said complainants commenced in this court, in equity, a cause against the aforesaid Beat Em All Barb Wire Company, E. Hoag, S. Thompson, J. E. Farewell, and Abram Hoag, which cause is now pending in said court, is at issue, and a large amount of testimony has
25 been taken on both sides, and the same is now nearly ready for submission, which cause is brought by said complainants against said defendants for manufacturing and selling the same wire which this defendant has been selling and for damages and royalty therefor, in which suit it is claimed that the manufacture and selling of said wire is an infringement of complainants' alleged patent No. 157,124, which suit covers all the wire this defendant ever has or has had or sold, which complainants now claim is in violation of said patents, and said suit will determine all the rights of complainants, if any they have, and which they claim are involved in this suit.

XI. Def't, further answering, state- on information and belief that these complainants instituted a suit in the United States circuit court for the northern district of Illinois against one Jacob Haish for an alleged infringement, among others, of the aforesaid alleged letters patent No. 157,124, and the same was brought to a

hearing on the 18th day of December, 1880, before his honor Judge Drummond, who decided, among other things, that said patent No. 157,124 was void for want of invention, which decision is reported in volume four (4) of the Federal Reporter, on
26 pp. 900–916, which decision, so far as it relates to said patent No. 157,124, is made a part hereof.

XII. Defendant, further answering, says that, in view of the state of the art, there was not at the time of the issuing of said letters patent No. 157,124 *there was no* invention in the devices described and claimed therein.

XIII. And, further answering on information and belief, say- that said Joseph F. Glidden was not the first and original inventor of the device described and claimed in said letters patent No. 157,124, dated Nov. 24, 1874, but that the same and all substantial parts thereof had been shown and described in the following letters patent long prior to the date of said patent No. 157,124, to wit:

William D. Hunt, July 23, 1867	No.	67,117
Michael Kelly, February 11, 1868	"	74,379
Lucien B. Smith, June 25, 1867	"	66,182
Michael Kelly, November 17, 1868	"	84,062
George D. Otis, July 21, 1868	"	84,205
Louis J. Hawley, Feb'y 6, 1868	"	52,411
Byron Boardman, M'ch 30, 1858	"	19,747
Elias C. Patterson, July 14, 1868	"	79,854
Joseph F. Glidden, May 12, 1874	"	150,683

and others, which defendant claims the right to prove on the trial of this cause.

27 XIV. And, for a further defense, defendant says on information and belief that said Joseph F. Glidden was not the first inventor of said alleged improvement in wire fences described and claimed in said patent No. 157,124, but, on the contrary, the same or every essential part thereof, long prior to the said claimed invention of Joseph F. Gidden, was known and used by Chester D. Stone in Delhi township, Delaware county, Iowa, in June, 1872, and later; Charles Beers, deceased; Edwin A. Beers, at Mayfield township, De Kalb Co., Illinois, in 1859 and later; Alvin Morley, deceased, in Delhi and Delaware township-, in Delaware county, Iowa, in 1859 and later; William H. Long, Oneida township, Delaware county, Iowa, in June, 1873, and later, and other persons, whose names are not now known to defendant, and which names *they* ask- leave of court to insert herein as soon as known.

XV. And this defendant den*y* all manner of unlawful combination and confederacy with which in said bill he is charged, and den*y* all other matters and thing- in said complaint charged not herein admitted or otherwise answered, and ask- to be hence dismissed with costs in his behalf wrongfully sustained.

28 W. W. NORWOOD, *Def't.*

BLAIR & DUNHAM,
Manchester, Iowa, Attorneys for Defendant.

UNITED STATES OF AMERICA,
Eastern Division, Northern District of Iowa.

On this 25th day of January, A. D. 1887, before me personally appeared W. W. Norwood, the defendant named in the foregoing answer, and on oath says that he has read said answer and knows the contents thereof, subscribed by him, and that the same is true of his own knowledge, except what is stated on information and belief, and as to those he believes them to be true.

W. W. NORWOOD.

[SEAL.] Subscribed and sworn to before me this 25th day of January, 1887.

P. L. HAYZLETT,
Notary Public.

(Endorsed:) In U. S. circuit in & for the northern dist., eastern div. of Iowa. Washburn & Moen M'f'g Co. & I. L. Ellwood *vs.* W. W. Norwood. In equity. Def't's answer. Filed Jan'y 28, 1887. A. J. Van Duzee, clerk. Blair & Dunham, attorneys for defendant.

29 And afterwards, to wit, on the 15th day of March, A. D. 1887, there was filed in the office of the clerk of said court a replication in said cause; which replication is in words and figures following, to wit:

United States Circuit Court, Northern District of Iowa, Eastern Division.

WASHBURN AND MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD *vs.* W. W. NORWOOD. } In Chancery.

The replication of Washburn and Moen Manufacturing Company and Isaac L. Ellwood, complainants, to the answer of W. W. Norwood, defendant.

These repliants, saving and reserving unto themselves now and at all times hereafter all and all manner of benefit and advantage of exception which may be had or taken to the man fold insufficiences of the said answer, for replication thereunto say that they will aver, and maintain, and prove their said bill of complaint to be true, certain, and sufficient in law to be answered unto, and that the said answer of the said defendant is uncertain, untrue, and
30 insufficient to be replied unto by these repliants; without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed or avoided, traversed or denied, is true.

All which matters and things these repliants are and will be ready to aver, maintain, and prove as this honorable court shall direct,

and humbly pray as in and by their said bill they have already prayed.

OFFIELD, TOWLE & PHELPS,
Sol'rs for Comp'ts.

(Endorsed:) No. 138. United States circuit court, northern district of Iowa, eastern division. In chancery. Washburn & Moen Manufacturing Company & Isaac L. Ellwood *vs.* W. W. Norwood. Replication. Filed M'ch 15, 1887. A. J. Van Duzee, clerk. Offield, Towle, & Phelps, solicitors for complainants.

31 And afterwards, to wit, on the 6th day of June, A. D. 1887, the same being the twenty-ninth day of the regular April term, 1887, of said court, there was entered upon Record No. 2, on page 347 thereof, among the regular proceeding- of said court, the following order in said cause, to wit:

WASHBURN & MOEN MANUF'G CO. & ISAAC L. ELLWOOD *vs.* W. W. NORWOOD. } No. 138. Equity.

In above cause, upon application of defendants, both parties consenting thereto, it is ordered that for purposes of trial this cause be and is consolidated with that of Washburn & Moen Manufacturing Compa'y *et al. vs.* Beat Em All Barbed Wire Co. *et al.*, No. 119, equity, now pending in this court, the evidence taken therein to be held applicable to this cause, and the same decree upon the questions of the validity and infringement of patent declared upon by complainant to be entered in this cause as shall be entered in that cause.

And afterwards, to wit, on the 5th day of January, A. D. 1888, the same being the 29th day of the November term, 1887, of said court, there was recorded in Record No. 2, on page 419 thereof,
32 among the regular proceedings of said court, the following entry & decree in said cause, to wit:

WASHBURN & MOEN MANF'G CO. *et als.* *vs.* W. W. NORWOOD. } No. 138. Equity.

And now, this 5th day of January, A. D. 1888, this cause coming before the court, the same having heretofore been submitted, and the court being fully advised in the premises—

It is ordered, adjudged, and decreed that said cause be, and is hereby, dismissed on the merits, at the cost of complainants, and defendants have and recover their costs in this court against complainants, taxed at $67.85.

And afterwards, to wit, on the 5th day of March, A. D. 1888, the complainants in said cause, by their solicitors, Lehman & Parks, file in the office of the clerk of said court a petition for allowance of appeal and a supersedeas bond; which petition & bond are in the following words and figures, to wit:

In the Circuit Court of the United States in and for the Northern District of Iowa, Eastern Division.

33	WASHBURN AND MOEN MANUFACTURING COMPANY and Isaac L. Ellwood, Complainants, *vs.* W. W. NORWOOD, Defendant.	Petition for Allowance of Appeal.

Come now the complainants herein and show that this is a suit in equity, brought for an injunction and an accounting against defendant for an infringement by defendant of the rights secured by letters patent of the United States No. 157,124, granted to Joseph F. Glidden, and dated November 24th, 1874, and the said cause having been theretofore fully submitted to the court, a decree was rendered therein on the 5th day of January, A. D. 1888, dismissing the said cause on the merits at the costs of complainants, and ordering adjudging, and decreeing that the defendant have and recover against the complainants his costs, taxed at $——; and whereas in the rulings, decision, and decree rendered in said cause errors prejudicial to the complainants have been committed, for the purpose of correcting the same the complainants therefrom pray the allowance of an appeal to the Supreme Court of the United States, and that a citation to the defendant be issued as provided by law.

LEHMAN & PARK,
Complainants' Solicitors.

34 The appeal in the above-named cause is allowed, as prayed in the foregoing petition, upon filing bond in the sum of five thousand dollars. Execution will be superceded.

O. P. SHIRAS,
Judge of the U. S. Circuit Court, Northern District of Iowa, Eastern Division.

(Endorsed:) No. 138. Equity. Washburn & Moen M'f'g Co. *et al. vs.* W. W. Norwood. Petition for allowance of appeal. Filed March 5th, 1888. A. J. Van Duzee, clerk.

Supersedeas Bond.

Know all men by these presents that we, The Washburn and Moen Manufacturing Company and IsaacL. Ellwood and Charles W. Pitcairn and L. G. Comparet, both of Des Moines, Iowa, are held and firmly bound unto W. W. Norwood in the full and just sum of five thousand dollars, to be paid to the said W. W. Norwood, his attorneys, executors, administrators, or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally, by these presents.

Sealed with our seals and dated this 29th day of February,
35 in the year of our Lord one thousand eight hundred and eighty-eight.

Whereas lately, at a term of the circuit court of the United States in and for the northern district of Iowa, eastern division, in a suit

depending in said court between Washburn and Moen Manufacturing Company and Isaac L. Ellwood, as complainants, and W. W. Norwood, as defendant, a decree was rendered against the said complainants, and they, the said Washburn and Moen Manufacturing Company and Isaac L. Ellwood, having duly obtained allowance of an appeal and citation to the said W. W. Norwood, citing and admonishing him to be and appear at the Supreme Court of the United States at its term, to be begun and holden on the second Monday of October next: Now, the condition of the above obligation is such that if the said Washburn and Moen Manufacturing Company and Isaac L. Ellwood shall prosecute their appeal to effect and answer all damages and costs if they fail to make their plea good, then the above obligation to be void; else to remain in full force and virtue.

WASHBURN & MOEN M'F'G CO. AND
ISAAC L. ELLWOOD,
By LEHMAN & PARK, *Att'ys.*
CHARLES W. PITCAIRN.
L. G. COMPARET.

Sealed and delivered in the presence of—
W. A. PARK.

36 STATE OF IOWA, } ss:
Polk County, }

We, Charles W. Pitcairn and L. G. Comparet, being duly and severally sworn, on oath depose and say and each for himself says that he is a resident of the State of Iowa; that he is one of the above-named sureties in the foregoing bond; that he is worth the sum of thirty thousand dollars beyond the amount of his debts, and that he has property liable to execution in the State of Iowa equal to the sum of thirty thousand dollars.

CHARLES W. PITCAIRN,
L. G. COMPARET, *Sureties.*

Subscribed and sworn to before me by Charles W. Pitcairn and L. G. Comparet this 29 day of Februa-y, A. D. 1888.

[SEAL.] W. A. PARK,
Notary Public, Polk Co., Iowa.

Approved Mar. 2, 1888.

O. P. SHIRAS, *Judge.*

U. S. OF AMERICA, } ss:
So. Dist. Iowa, }

I, E. R. Mason, clerk of said U. S. circuit court, south. D.Ia., cent. div., hereby certify that if the within bond was presented to me I would approve the same.

[SEAL.] E. R. MASON,
Clerk U. S. Cir. Court, S. Dist. Iowa.

37 (Endorsed:) No. 138. Equity. Washburn & Moen M'f'g Co. *et al. vs.* W. W. Norwood. Supersedeas bond. Filed March 5th, 1888. A. J. Van Duzee, clerk.

And afterwards, to wit, on the 19th day of September, A. D. 1888, there was filed in the office of the clerk of said court a citation; which citation is in the words and figures following, and the marshal's return thereon, to wit:

In the Circuit Court of the United States in and for the Northern District of Iowa, Eastern Division.

WASHBURN & MOEN MANUFACTURING COMPANY & ISAAC L. ELLWOOD, Complainants, *vs.* W. W. NORWOOD. } Citation.

The President of the United States of America to W. W. Norwood, Greeting:

You are hereby cited and admonished to be and appear at the Supreme Court of the United States, to be holden on the second
38 Monday of October next, pursuant to an appeal allowed and filed in the clerk's office of the circuit court of the United States in and for the northern district of Iowa, eastern division, wherein the above-named Washburn and Moen Manufacturing Company and Isaac L. Ellwood are appellants and you are appellee, to show cause, if any you have, why the judgment and decree of the court in said appeal mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

Witness the Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, this second day of March, A. D. 1888.

O. P. SHIRAS, *Judge.*

This notice came into my hands for service on the 14 day of Sept., 1888, and I served the same on the 14 day of Sept., 1888, on the within-named W. W. Norwood by reading the same to him and by delivering to him personally a true copy of this notice, all in Cedar twp., Benton Co., Iowa.

W. M. DESMOND,
U. S. Marshal,
By J. W. BARR,
Special Deputy.

Fees:

39

Service		2 00
Mileage		6 78
Copy		1 00
		9 78

(Endorsed:) United States circuit court, northern district of Iowa, eastern division. Washburn & Moen Man'f'g Co. and I. L. Ellwood

vs. W. W. Norwood. Citation. Filed Sept. 19, 1888. A. J. Van Duzee, clerk.

39½ In the Circuit Court of the United States in and for the Northern District of Iowa, Eastern Division.

WASHBURN AND MOEN MANUFACTURING COMPANY and ISAAC L. ELLWOOD, Complainants,
vs.
W. W. NORWOOD, Defendant.
} Citation.

The President of the United States of America to W. W. Norwood, Greeting:

You are hereby cited and admonished to be and appear at the Supreme Court of the United States, to be holden on the second Monday of October next, pursuant to an appeal allowed and filed in the clerk's office of the circuit court of the United States in and for the northern district of Iowa, eastern division, wherein the above-named Washburn and Moen Manufacturing Company and Isaac L. Ellwood are appellants and you are appellee, to show cause, if any you have, why the judgment and decree of the court in said appeal mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

Witness the Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, this second day of March, A. D. 1888.

O. P. SHIRAS, *Judge.*

[Endorsed:] U. S. circuit court, northern district of Iowa, eastern division. Washburn & Moen M'f'g Co. & I. L. Ellwood *vs.* W. W. Norwood. Citation. Filed Sept. 19, 1888. A. J. Van Duzee, clerk.

This notice came into my hands for service on the 14 day of Sept., 1888, and I served the same on the 14 day of Sept., 1888, on the within-named W. W. Norwood by reading the same to him and by delivering to him personally a true copy of this notice, all in Cedar twp., Benton Co., Iowa.

W. M. DESMOND,
U. S. Marshal,
By J. W. BARR,
Special Deputy.

Fees:

Service	2 00
Mileage	6 78
Copy	1 00
	$9 78

40 And on the 21st day of December, A. D. 1887, there was filed in the office of the clerk of said court a deposition on part of complainants in said cause; which deposition is in the following words and figures, to wit:

United States Circuit Court, Northern District of Iowa, Eastern Division.

WASHBURN & MOEN MANUFACTURING COMPANY *et al.*
vs.
W. W. NORWOOD. } In Equity.

To Messrs. Blair & Dunham, solicitors for defendant:

Please take notice that on Tuesday, the 31st day of May, A. D. 1887, at 11 o'clock a. m., we shall proceed to take testimony on behalf of complainants, to be used upon the hearing of the above-entitled cause, at our office, room 99, No. 187 Dearborn street, Chicago, Illinois, before Frederick C. Goodwin, Esq., a notary public, or other competent officer. The taking of testimony will continue from day to day until completed. You are invited to be present and cross-examine.

Chicago, Ill., May 27, 1887.

OFFIELD & TOWLE,
Solicitors for Complainants.

STATE OF IOWA, }
County of Delaware, } *ss:*

41 Charles Husted, of lawful age, being first duly sworn, deposes and says that he served the above notice by leaving a copy thereof with Messrs. Blair & Dunham at their office, in Manchester, Iowa, at 3 o'clock p. m., the 28th day of May, A. D. 1887.

CHAS. HUSTED.

[SEAL.] Subscribed and sworn to before me this 28th day of May, A. D. 1887.

S. S. SUMMERS,
Notary Public.

United States Circuit Court, Northern District of Iowa, Eastern Division.

WASHBURN & MOEN MANUFACTURING COMPANY *et al.*
vs.
W. W. NORWOOD. } In Equity.

At Chicago, in the northern district of Illinois, on the 31st day of May, A. D. 1887, at 11 o'clock a. m., before me, Frederick C. Goodwin, a notary public within and for Cook county, Illinois, residing at Chicago, in said district, at the office of Offield & Towle, room 99, No. 187 Dearborn street, Chicago, Illinois.

Present: C. K. Offield, Esq., on the part of said complainants, no counsel appearing for defendants.

And thereupon the following proceedings were had before
42 me in said cause pursuant to notice hereto attached:

Adjourned to Thursday, June 2, 1887, at 10 o'clock a. m.

THURSDAY, *June* 2, 1887—10 o'clock a. m.

Met pursuant to adjournment.

Present: Same as before.

Complainants' counsel here offers in evidence certified copy of letters patent issued to Joseph F. Glidden, dated November 21, 1874, and numbered 157,124, and requests the notary to identify the same with the record and mark the same "Complainants' Exhibit Glidden November, 1874, Patent."

Complainants' counsel offers in evidence certified copies of the several assignments of said patent, showing the title to the same to be in complainants, as alleged in the bill of complaint filed herein, and requests the notary to mark the same, after due identification herewith, as "Complainants' Exhibit Complainants' Title."

Complainants' counsel also offers in evidence two samples of wire sold and offered for sale by the above defendant at his place of business in the northern district of Iowa, eastern division, prior to the filing of the bill of complaint herein and within six months of the date
43 of such filing, and requests the notary to identify the same with this record, and mark the same "Complainants' Exhibit Defendant's Wire- No-. 1 & 2," complainants' counsel stating in this connection that he offers such exhibits for the purpose of examining the expert witnesses now about to be put upon the stand, and that he will hereafter prove the possession and sale of such exhibits as indicated above.

And thereupon complainants' counsel calls as a witness in their behalf DAVID J. POWERS, who, being first duly sworn to state the truth, the whole truth, and nothing but the truth, deposes as follows in answer to interrogatories propounded to him by C. K. OFFIELD, Esq.:

Q. 1. Please state your name, age, residence, and occupation.

A. David J. Powers; 70 years and past; residence, Chicago; occupation, mechanical engineer and manufacturer.

Q. 2. Please state what experience you have had which enables you to understand different forms of mechanisms employed in
44 the useful arts, and to compare analogous mechanisms one with the other for the purpose of understanding and explaining their similarities and differences; and state also what experience you have had, if any, with patented inventions which enable- you to understand the construction and operation of patented devices from a study of the drawings and specifications of letters patent covering the same.

A. I have been engaged in mechanical pursuits for more than 50 years and during that period have had the charge of various lines of mechanical business and usually as an engineer or master mechanic. During such employment I have had occasion to devise and construct a great variety of mechanical devices and machines, and have often been employed by other parties to perfect and reduce their *to* inventions to practice. I have applied for some 40 patents on my own inventions and have often prepared my own cases for the Patent Office. During the last twenty years I have been em-

ployed as a mechanical expert in a great number of litigated cases in the United States courts relating to patents, and, among the rest, in many cases relating to barb fence wire and machines for its manufacture.

45 Q. 3. Please examine carefully, if you have not already done so, "Complainants' Exhibit Glidden November, 1874, Patent," and state whether or not you understand the same and the construction and operation of the mechanisms therein described and shown.

A. I have examined said patent exhibit with proper care, and fully understand the device therein contained, as to its mechanism and purpose.

Q. 4. In your opinion, would any ordinary skilled mechanic have any difficulty in constructing a practically operating device simply from the information furnished by the patent itself?

A. No; no mechanic skilled in the art to which the patent appertains.

Q. 5. Please examine carefully "Complainants' Exhibit Defendant's Wire- Nos. 1 & 2" and state, if you understand the same, their construction and purpose.

A. Having examined said wire exhibits, I fully understand their construction and the use they are intended to be put to.

46 Q. 6. Please compare "Complainants' Exhibit Glidden November, 1874, Patent" with "Complainants' Exhibit Defendant's Wire- Nos. 1 & 2," and state whether or not you find the inventions, combinations, and devices described in said patent exhibit to be embodied and contained in "Complainants' Exhibit Defendant's Wire- Nos. 1 & 2" and give your reasons fully and at large for any opinion you may express.

A. On comparing "Complainants' Exhibit Defendant's Wire" in its construction and character with this wire device shown, described, and claimed in the complainants' patent exhibit, I find said defendant's wire to be identical in all respects with the wire device of the patent exhibit, and as claimed in the summing up of said patent. Both defendants' wire exhibits and the wire exhibit of patent- are composed of two corresponding strands of fence wire with barbs or thorns affixed to one of said strands, said thorns in both cases consisting of short pieces of wire coiled between their ends around each of said strands, after which the strands are twisted together in identically the same manner in both cases, and so as to lock and secure

47 the barbs upon the strands in a sufficiently rigid manner to render them efficient as and for what is known as barb-wire fence. Thus I perceive no material difference, as already stated, between "Complainants' Exhibit Defendant's Wire" and the wire device summed up in the claim of Glidden's patent. True, the points of the barb upon defendant's wire are cut somewhat sharper than the barbs shown in the patent exhibit, but this difference I do not regard as material, as the purpose in both cases must have been the same, to wit, to make a barb or thorn as pointed as was found necessary or desirable for the purpose of turning animals, and whether the barbs were pointed more or less sharp would only be a

matter of taste or judgment on the part of the manufacturer of the wire, and in no way would such degree of pointing the barbs necessarily involve invention. Therefore, as aforesaid, I see no material difference whatever between "Complainants' Exhibit Defendant's Wire" and the wire device set forth in complainants' patent and summed up in the claim thereof.

Q. 7. Do you know the actual date of the filing in the
48 Patent Office of the application for Complainants' Exhibit Glidden November, 1874, Patent"?

A. My recollection is that I have observed the date of filing on the different patents that I have used in testifying to be October 27, 1873.

Cross-examination:

X Q. 1. You say you have read and understand the patent to Joseph F. Glidden, No. 157,124, which is the patent in this suit. Will you state whether or no, in your opinion, the invention consists in putting the tranverse spur wire D, bent as described, about or on one of the wires of the fence wire?

A. I understand that to be a part of the invention as enumerated with the whole.

X Q. 2. Is that the invention of the patent when standing by itself?

A. I do not understand that it is.

49 X Q. 3. Having a fence wire with the spur wire D bent at its middle portion about such fence wire, would it come under this claim, in your opinion, if another wire were stre-ched alongside of it?

A. The simply stretching another wire along by the side of the one having the barbs would not, in my opinion, make such a wire as Glidden claims and shows in his patent.

X Q. 4. If we had single fence wire with the spur wire D bent at its middle portion about such single fence wire and another wire stre-ched alongside of it, would the twisting of those two wires together form the wire claimed by Glidden?

A. I understand that a barb made of a short piece of wire coiled between its ends around a fence-wire strand and a fellow wire twisted with such strand sufficiently to secure the barbs in place would be such a wire as Glidden claims to have invented; and if the wire recited in the question is such a wire it would contain the Glidden invention.

50 X Q. 5. I find in the Glidden patent the following: "C represents the twisting key." What is the office of that twisting key?

A. At the time of the invention of this Glidden patent I understand that it was contemplated in some instances to barb wires already upon the posts of a fence, and key C was a device by which the two or more strands of wire could be twisted together after the barbs were applied, or could be twisted in the factory as the barbs were applied; but no reference is made to the key C in the claim of

the patent, as I discover, and hence I had not regarded it as claimed or an essential feature of the invention in my direct testimony.

X Q. 6. If a fence such as you have described, consisting of two wires running side by side from one post to the other, had barbs placed upon one of the wires and the device or twisting key C had been applied at one end of these two wires, would it have required the exercise of any inventive faculty to turn the twisting key C and twist the two wires together sufficient to hold the barbs in place?

51 A. I am of the opinion that it would not have required as much inventive faculty as strength with such a key as is shown to have twisted the wires sufficiently, and no invention merely to turn the key after everything was ready for it.

X Q. 7. Are you acquainted with the state of the art prior to November 24th, 1874, the date of this patent?

A. Yes; I consider that I am, as far as the prior barb wires are concerned.

X Q. 8. Is or is not the wire claimed in this patent shown, if not described, in a former patent of Glidden?

Complainants' counsel objects to the question unless the attention of the witness is called to the particular patent counsel refers to.

A. I do not understand that it is.

X Q. 9. For how long a time or since when have barbs or spurs been used on wire fences?

52 A. The date of the earliest patent with which I have acquaintance is June 26th, 1867. But I do not know how soon or where such fence was actually constructed or put in use.

X Q. 10. What was the shape of a barb used in that patent and how was it fastened to the fence or wire?

A. The barbs were composed of short straight pieces of pointed wire having one end inserted in a spool and the other ends extending outward in opposite directions, transverse to a longitudinal opening in the spool through which it was strung, upon the single-strand fence wire at proper intervals and secured in position by bends in the wire at each end of the spool, the barb spool being capable of rotating upon the wire and the sharp points of the wire being outward.

X Q. 11. Will you tell us when the next barb makes its appearance on the wires of the fences?

A. In the Hunt patent of July 23rd, 1867, about a month

53 later than Smith, before referred to.

X Q. 12. What was the shape and form of the barb in the Hunt patent?

A. The Hunt patent consisted of certain spur wheels of sheet metal having points like a spur wheel strung upon a single fence wire at proper intervals.

X Q. 13. What is the next patent, and what is the shape of the spurs?

A. The next is the Kelly patent of February 11th, 1868, and shows and describes spurs cut from sheet metal with two opposite points,

and a hole in the center to permit those to be strung upon a single fence wire.

X Q. 14. How were these spurs retained in place?

A. The mode described and shown for retaining these barbs in place was by crushing the barb so as to narrow the opening, as shown in Fig. 8 of the drawing, and also to crush or flatten the wire where this barb is to stand.

54 X Q. 15. Will you state what construction is shown in Fig. 2 of this patent which you are describing, and how is it described in the specification?

A. Fig. 2 of the drawing shows two wires twisted together with sheet-metal perforated barbs secured upon one of them, and the specification recites as follows: "In relation thereto I can, when it is desirable to increase the strength of the wire, lay another wire of the same or a different size alongside of a thorn wire, and can twist the two together by any suitable mechanism. This construction is represented in Fig. 2. It tends to insure a regularity in the distribution of the points in many different directions." The foregoing is all that I understand recites as to Fig. 2 of the drawing.

X Q. 16. In Glidden's patent of May, 1874, he says: "I do not claim to have originated the device known as spurs or prongs on the wires; they have been used before." Was there any inven-

55 tion in putting the coiled wire, spur, or prong which is marked "E" in the May patent in the place of the prong shown in Fig. 2 of the Kelly patent referred to in your last answer?

A. In my opinion there is enough difference between a sheet-metal perforated barb and a barb formed of a short piece of wire coiled centrally around a fence wire or coiled so as to form an eye capable of being strung on a fence wire, for the reason that it is substantially a different construction mechanically and capable of being constructed and applied to the wire automatically, whereas the sheet-metal barb of Kelly, so far as I know, has never been constructed and applied automatically to a fence wire, for the reason that each perforated barb has to be slipped onto the end of the wire strand in process of manufacture, and for the further reason that the coiled wire barb presents a broader base of support for the wire strand than the sheet-metal barb. Thus the difference between these two

56 barbs appears to be clearly a patentable difference, and was so regarded by the Patent Office, and, as I have good reason to know, has been so regarded by the United States courts, and I regard the difference clearly as a patentable one.

X Q. 17. The question was not as to the difference between the two barbs, but whether it required invention to put one in the place of the other in Kelly's twisted wire, shown in Fig. 2.

A. To this form of question I reply that, for any reason that I can comprehend, there was invention required to construct and apply a wire barb like Glidden's in place of a sheet-metal perforated barb like Kelly's. It clearly was a new kind of barb and has proved exceedingly useful in practice, and consequently constituted what the Patent Office required to embody or contain an invention. It will be noticed that the Patent Office has granted several hundred

modifications of barbs and wires and modes of applying them since the date of complainants' patent, and they are ordinarily con-
57 sidered good authority as to how much or how little is required to constitute invention. Supposing Kelly or anybody else had made a Glidden barb and had it in hand ready for use, there might have been no more invention in putting it upon Kelly wire of Fig. 2 and crushing it down to rigidly attach it than to have put on the sheet metal that Kelly shows in Fig. 2. There probably would not have been.

I do find in the Kelly patent that the barb, as shown and described, — to be crushed upon the wire to hold it in position, and that the additional wire is stated to be for additional strength and distribution of the points of the barbs merely, while in the Glidden patent referred to I find an entirely different barb in the main, with no provision for crushing it, but with an additional wrapping wire twisted together with the barb strand to secure the barbs in position.

I do not consider that any one of the patents in the prior state of the art embody or contain the invention shown, described, and claimed in the complainants' Glidden patent, on which this suit is brought.

X Q. 18. How can the prong in the patent in suit be new
58 when it is shown in the Glidden patent of May, 1874, which was six months prior to the one in suit?

A. For the reason that I understand that the patent sued on was applied for, and therefore was an existing invention at that date, October 27th, 1873, while the patent of May 12th, 1874 (though issued prior to the other), was not applied for until March 14th, 1874. Consequently this former patent could not be held to antedate the prior application of the subsequently granted patent.

DAVID J. POWERS.

Subscribed and sworn to this 2d day of June, A. D. 1887, before me—

[SEAL.] FREDERICK C. GOODWIN,
Notary Public.

Adjourned to Friday, June 3d, 1887, at 10 o'clock a. m.

FRIDAY, *June* 3, 1887—10 o'clock a. m.

Met pursuant to adjournment.

59 Present: Same as before.

And thereupon complainants' counsel calls as a witness in their behalf WILLIAM V. MILLINGTON, who, being first duly sworn to state the truth, the whole truth, and nothing but the truth, deposes as follows in answer to interrogatories propounded by C. K. OFFIELD, Esq.:

Q. 1. Please state your name, age, residence, and occupation.

A. William V. Millington; age, 28; residence, Chicago; my general occupation is dealer in guns and fishing-tackle.

Q. 2. Were you ever employed in behalf of these complainants to go to Mt. Auburn, Iowa, to ascertain whether or not the defendant Norwood in this case was handling and selling barbed wire not manufactured by these complainants or their licensees?

A. I was.

Q. 3. At what time?

60 A. November, 1886. I was at Mt. Auburn on *on* the fifth of November.

Q. 4. What did you ascertain at that time and place as to this defendant Norwood handling or selling unlicensed barb fence wire, as indicated above.

A. I found a number of spools of barb wire, unlicensed, at the depot at Mt. Auburn consigned to the defendant, and ascertained that the wire was for the defendant, W. W. Norwood, and know that he was in the barb-wire and livery business.

Q. 5. In November, 1886, did you obtain from those spools of wire of the defendant any samples at Mt. Auburn?

A. I did.

Q. 6. Please look at the two samples of wire now shown you, marked "Complainants' Exhibit Defendant's Wire No. 1" and "Complainants' Exhibit Defendant's Wire No. 2," and state what they are, when and where you first saw them, and where they came from.

61 A. They are samples of barbed wire; first saw them on spools of the defendant at Mt. Auburn, Iowa, November 5th, 1886, from which spools they were taken by me.

WILLIAM V. MILLINGTON.

Subscribed and sworn to this 3d day of June, A. D. 1887, before me—

[SEAL.] FREDERICK C. GOODWIN,
Notary Public.

And thereupon complainants' counsel calls as a witness in their behalf JEROME W. MILLINGTON, who, being first duly sworn to state the truth, the whole truth, and nothing but the truth, deposes as follows in answer to interrogatories propounded by C. K. OFFIELD, Esq.:

Q. 1. Please state your name, age, residence, and occupation.

A. Jerome W. Millington; lawful age; residence, Chicago, Cook county, Illinois; occupation for the last six or seven years, have been employed by the Washburn & Moen Manufacturing Company looking after their barb-wire interests, and was indirectly

62 looking after such interests for three years prior to the last six or seven years.

Q. 2. During that time what knowledge have you had, if any, of the various licenses of the above-named complainants under their barb fence wire patents, particularly as to the style of barb fence wire manufactured by their respective licensees under their respective licenses?

A. I have been acquainted with all their licensees, and have visited them frequently, and am familiar with all the styles of wire manu-

factured by the licensees of the Washburn & Moen M'f'g Co.; have in my possession copies of the licenses granted and duplicate samples of the wire attached to the licenses.

Q. 3. Do the licensees of the above complainants manufacture any style of barb fence wire they may choose to *to* select under their licenses; and, if not, why not?

A. They do not; they are restricted to a certain style, selected or agreed upon by these complainants and attached to their
63 licenses, and each lisencee is confined to his particular style so attached to his license. The reason for this course was that prior to granting licenses most of those taking a license from the Washburn & Moen M'f'g Co. had previously manufactured a certain style of wire on which they had established a trade, and in most instances were allowed to continue to manufacture the same style under their license.

Adjourned to Saturday, June 4, 1887, at 10 o'clock a. m.

SATURDAY, *June* 4, 1887—10 o'clock a. m.

Met pursuant to adjournment.

Present: Same as before.

Q. 4. Do the complainants retain to themselves exclusively the manufacture and sale of any particular style of barb fence wire; and, if so, under what name is that wire known to the trade?

A. They do, and it is known to the trade as the "Glidden" barb wire.

Q. 5. Is that Glidden barb wire the wire shown and described in the patent in suit?

64 A. It is.

Q. 6. Have the defendants any right, title, or authority of any description to make this wire or have the complainants ever licensed or permitted any person or corporation of any description to make this wire?

A. They have not, and I know of my own knowledge that the United States district judge for the northern district of Illinois granted an injunction against Jacob Haish (who — for several years a licensee of the complainants), who commenced the manufacture of the Glidden wire of the patent sued on.

Q. 7. Were the samples of barb wire attached to the deposition of W. V. Millington and introduced in evidence in this case made by the complainants or either of them?

A. They were not, and the reason I know they were not is that the coiling of the barb is done in a much more workmanlike manner, as shown in the complainants' wire, by reason of their
65 having improved machinery made for this special style of wire, and the cut of the barb is quite different in the complainants' wire than that shown in the defendant's, and the whole general appearance of the defendant's wire is radically different from the wire manufactured by the complainants, so far as its workmanship is concerned.

Q. 8. To what extent do the complainants and each of them manufacture the Glidden wire in suit?

A. They manufacture very large quantities.

JEROME W. MILLINGTON.

[SEAL.] Subscribed and sworn to this 4th day of June, A. D. 1887, before me—

FREDERICK C. GOODWIN,
Notary Public.

Complainants here rest their *prima facie* case.

STATE OF ILLINOIS, } ss:
County of Cook, }

I, Frederick C. Goodwin, a notary public in and for the county
66 of Cook, in the State aforesaid, do hereby certify that the foregoing depositions of David J. Powers and Jerome W. Millington were taken before me at the time and place therein specified, pursuant to notice hereto attached, by consent of counsel made a part of this record; that the parties to said cause were present at the taking of the same—complainants, by their counsel, C. K. Offield, Esq., no one appearing for the defendant, as therein appears; that before deposing the said David J. Powers and Jerome W. Millington were each by me first duly sworn to tell the truth, the whole truth, and nothing but the truth in the cause now pending in the United States circuit court for the northern district of Iowa, in the eastern division, wherein Washburn & Moen Manufacturing Company *et al.* are complainants and W. W. Norwood is defendant; that said depositions were reduced to writing from said witnesses' statements, and the same duly subscribed and sworn to by each of them, as therein appears.

And I do further certify that I am neither attorney nor of counsel for any of the parties in said deposition or caption named and am in nowise interested in the result of said cause.

67 In testimony whereof I have hereunto set my hand and notarial seal this 4th day of June, A. D. 1887.

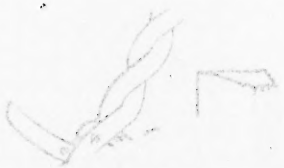
FREDERICK C. GOODWIN,
[SEAL.] *Notary Public.*

Fees for writing and certifying depositions, $7.50, paid by complainants' solicitors.

FREDERICK C. GOODWIN,
Notary Public.

(Endorsed): Filed Dec. 21, 1887. A. J. Van Duzee, clerk.

And upon same day there was filed in the office of the clerk of said court in said cause "Complainants' Exhibit Glidden November, 1874, Patent;" which said complainants' exhibit is — the *the* following words, figures, and drawing-, to wit:



J. F. GLIDDEN.

Wire-Fences.

No. 157,124. Patented Nov. 24, 1874.

No. 129
W. & M. Mfg. Co et al } p. 69
v.
Norwood

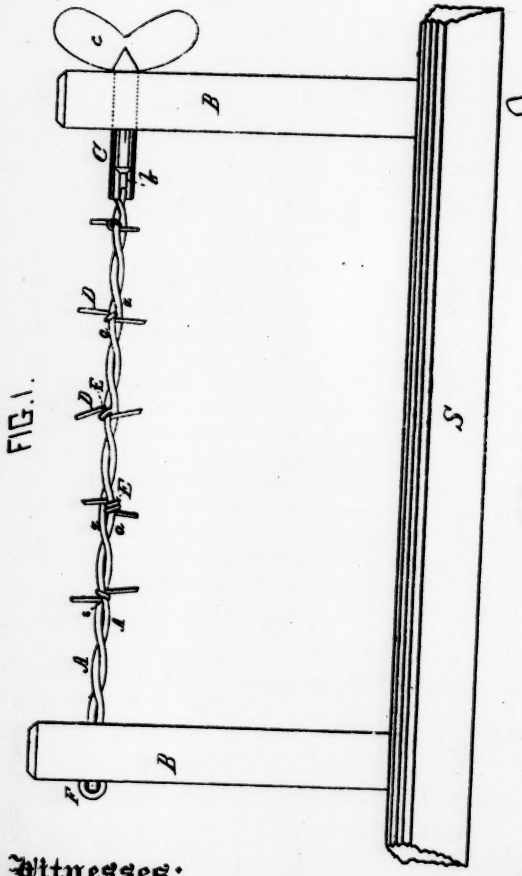


FIG. I.

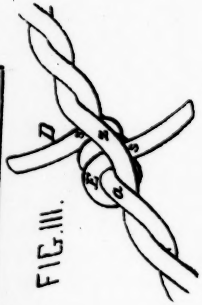


FIG. III.



FIG. II.

Witnesses:
J. H. Ellis
G. G. Bellows

Inventor:
Joseph F. Glidden,
By G. L. Chapin
Atty.

68 UNITED STATES PATENT OFFICE.

JOSEPH F. GLIDDEN, of De Kalb, Illinois.

Improvement in Wire Fences.

Specification forming part of Letters Patent No. 157,124, dated November 24, 1874; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, Joseph F. Glidden, of De Kalb, in the county of De Kalb and State of Illinois, have invented a new and valuable improvement in wire fences; and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

(Here follows diagram marked p. 69.)

Figure 1 represents a side view of a section of fence exhibiting my invention. Fig. 2 is a sectional view, and Fig. 3 is a perspective view, of the same.

This invention has relation to means for preventing cattle from breaking through wire fences; and it consists in combining, with the twisted fence-wires, a short transverse wire, coiled or bent at its central portion about one of the wire strands of the twist, with its free ends projecting in opposite directions, the other wire strand serving to bind the spur-wire firmly to its place, and in position, with its spur ends perpendicular to the direction of the fence-wire, lateral movement, as well as vibration, being prevented. It also consists in the construction and novel arrangement, in connection with such a twisted fence-wire, and its spur-wires, connected and arranged as above described, of a twisting-key or head-piece passing through the fence-post, carrying the ends of the fence-wires, and serving, when the spurs become loose, to tighten the twist of the wires, and thus render them rigid and firm in position.

In the accompanying drawings, the letter B designates the fence-posts, the twisted fence-wire connecting the same being indicated by the letter A. C represents the twisting-key, the shank of which passes through the fence-post, and is provided at its end with an eye, *b*, to which the fence-wire is attached. The outer end of said key is provided with a transverse thumb-piece, *c*, which serves for its manipulation, and at the same time, abutting against the post, forms a shoulder or stop, which prevents the contraction of the wire from drawing the key through its perforation in said post.

The fence-wire is composed at least of two strands, *a* and *z*, which are designed to be twisted together after the spur-wires have been arranged in place.

The letter D indicates the spur-wires. Each of these is formed of a short piece of wire, which is bent at its middle portion, as at E, around one only of the wire strands, this strand being designated by

the letter *a*. In forming this middle bend or coil several turns are taken in the wire, so that it will extend along the strand-wire for a distance several times the breadth of its diameter, and thereby form a solid and substantial bearing-head for the spurs, which will effectually prevent them from vibrating laterally or being pushed down by cattle against the fence-wire. Although these spur-wires may be turned at once around the wire strand, it is preferred to form the central bend first, and to then slip them on the wire strand, arranging them at suitable distances apart. The spurs having thus been arranged on one of the wire strands are fixed in position and place by approaching the other wire strands *z* on the side of the bend from which the spurs extend, and then twisting the two strands *a z* together by means of the wire key above mentioned, or otherwise. This operation locks each spur-wire at its allotted place, and prevents it from moving therefrom in either direction. It clamps the bend of the spur-wire upon the wire *a*, thereby holding it against rotary vibration. Finally, the spur ends extending out between the strands on each side, and where the wires are more closely approximated in the twist, form shoulders or stops *s*, which effectually prevent such rotation in either direction.

Should the spurs, from the untwisting of the strands, become loose and easily movable on their bearings, a few turns of the twisting-key will make them firm, besides straightening up the fence-wire.

What I claim as my invention, and desire to secure by letters patent, is—

A twisted fence-wire having the transverse spur-wire D bent at its middle portion about one of the wire strands *a* of said fence-wire, and clamped in position and place by the other wire strand *z*, twisted upon its fellow, substantially as specified.

JOSEPH F. GLIDDEN.

Witnesses:
G. L. CHAPIN.
J. H. ELLIOTT.

70 THE UNITED STATES OF AMERICA, *Northern District of Iowa*, } *ss*:

I, A. J. Van Duzee, clerk of the United States circuit court in and for the northern district of Iowa, do hereby certify that the foregoing transcript contains full, true, and complete copies of the record and proceedings in the case of Washburn & Moen Manufacturing Company and Isaac L. Ellwood, complainants, *vs.* W. W. Norwood, defendant, as full, true, and complete as the originals of the same now remains on file and of record in my office.

I further certify that there was introduced in evidence in said cause, in addition to the foregoing record, two exhibits of wire, marked respectively "Complainants' Exhibit Defendant's Wire No. 1" and "Complainants' Exhibit Defendant's Wire No. 2," which said two exhibits are hereto attached.

I further certify that the original citation, with the return of service thereof endorsed thereon, is hereto attached and returned herewith.

In testimony whereof I hereunto subscribe my name and
71 affix the seal of said court at Dubuque, in the said district, this 24th day of September, A. D. 1888.

[Seal Circuit Court U. S., Northern District of Iowa, Dubuque.]

A. J. VAN DUZEE,
Clerk U. S. Circuit Court, Northern District of Iowa.

Cost of transcript---------- $19 60
Marshal on citation------- 9 78

Endorsed on cover: N. Iowa C. C. U. S. No. 129. The Washburn & Moen Manufacturing Company and Isaac L. Ellwood, appellants, *vs.* W. W. Norwood. Filed September 28, 1888.